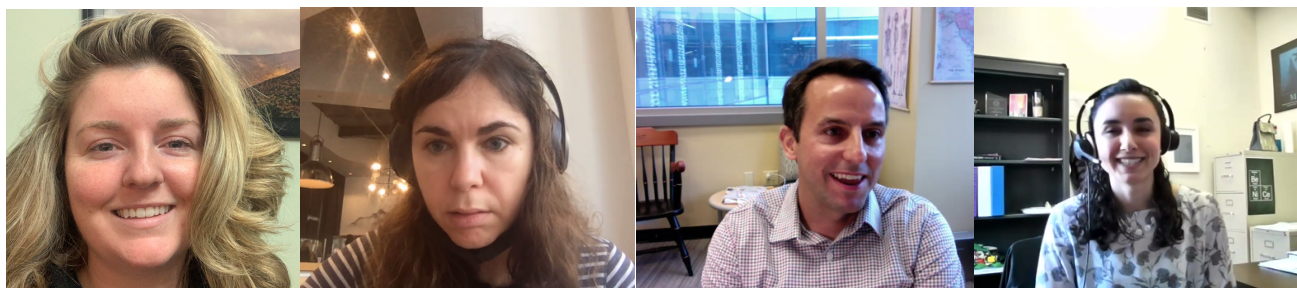


Panel discussion: Careers in Academia

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Summary by Elizabeth Yvonne Flores and Jean Royce Gatdula



Panelists: (pictured left to right):

Dr. Amanda Bolgioni-Smith; BUSM Associate Director for Program Evaluation, Clinical and Translational Science Institute; Assistant Professor, Medical Sciences & Education

Dr. Anna Belkina; BUSM Director, Flow Cytometry Core Facility; Assistant Professor of Pathology & Laboratory Medicine

Dr. Daniel Starczynowski, Professor, University of Cincinnati; Professor, Cincinnati Children's Hospital Medical Center, Department of Pediatrics; Member, Division of Experimental Hematology & Cancer Biology; Co-Leader, Hematologic Malignancies Program, Cancer and Blood Diseases Institute; Katherine Stewart Waters Endowed Chair of Hematologic Malignancies

Dr. Chadene Tremaglio; University of Saint Joseph, Assistant Professor, Biology

Dr. Barbara Schreiber; BUSM Associate Professor of Biochemistry (Moderator)

To aspiring academics, a tenure professorship title is often regarded as the ultimate career route for a PhD scientist. We understand a tenure position to represent financial security and the intellectual freedom to explore research interests that may take years to complete. But let's be clear, a career in academia cannot be defined by a singular job description. Each of the positions held by the panelists at the Boston University's Broadening Experiences in Scientific Training (BU's BEST) panel discussion on careers in academia assured us that there *are* many other satisfying career options within academia. While the panelists have taken a variety of paths within academia, all are successful, and hold promise for their futures.

Dr. Starczynowski followed the traditional academic career path and he now holds joint appointments as Professor, University of Cincinnati and Cincinnati Children's Hospital Medical Center, the former allowing him to teach at the graduate level and participate in mentoring committees, the latter defining his research into basic mechanisms of blood cancer and new targets for therapies. "As an academic, you are your own supervisor" says Dr. Starczynowski.

Academia is largely governed by those in administrative roles, and in fact, there now exist administrative post-doctoral positions for further training for these positions. After participating in an internship opportunity with BU's BEST in the last few months of her PhD, Dr. Bolgioni-Smith secured such a post-doctoral position with BU's BEST and then transitioned into the role as director of the program. Dr. Bolgioni-Smith remembers her IDP (Individual Development

Plan) suggesting sales as a career option. Now, as Associate Director for Program Evaluation at the Clinical and Translational Science Institute (CTSI), she realizes there are many aspects of sales that apply to her many roles. Her primary focus is evaluation but her passion lies with career and professional development, but in her words, “[she] wears many hats.” Her academic position extends to instructor of the leadership in biomedical education course, working in two different digital platforms to bring career and professional development to PhDs and Postdocs, evaluator for the T-32 training program and advocate for encouraging undergraduates from underrepresented backgrounds to pursue higher education.

Similarly, Dr. Belkina “wears many hats”; she is looking to add value to impactful projects with different collaborators as she continues to settle into her role as BUSM Director of the Flow Cytometry Core Facility and Assistant Professor of Pathology & Laboratory Medicine. While leading the flow cytometry core, she conducts research, mentors trainees across different labs and departments at the university and is currently authoring an algorithm that is widely used in the bioinformatics field. This project excites her, in her words, “[she] was self-taught on most of the algorithmic research.”

Dr. Tremaglio is an assistant professor of biology at the University of Saint Joseph, an undergraduate institution and in her role, she is primarily teaching faculty, but she also conducts a small research program. Her current position is an example of securing a job through a somewhat circuitous route. Prior to embarking on her current tenure track position, she had a brief career in freelance writing, particularly in popular, technical and educational science writing. Networking opportunities discovered through her writing work allowed her to land an adjunct teaching position and that is how she fell in love with teaching and working with undergraduates. Ultimately, the adjunct position led to her current appointment. Drs. Tremaglio and Starczynowski share a common interest in mentoring and the opportunity to have a long-term impact on their students’ lives.

When asked about advice for future trainees, Drs. Belkina and Starczynowski suggested seeking opportunities to develop data science skills because being computationally savvy is important in all aspects of science careers nowadays. Another recommendation was to exploit all available resources, attend conferences, workshops, seminars, seek out internships, and form collaborations. Dr. Tremaglio encouraged the trainees to “Take advantage of the free courses available to you as a student.” She said this is the time to explore career options and learn new skills. Dr. Starczynowski reminded everyone to “Bear in mind it is also a great idea to explore different career options, whether conventional or alternative that are available to PhD scientist.” The panelists agreed soft skills are so important; people management – the ability to interact with scientists and non-scientists – is essential. For Dr. Starczynowski, the ability to convey scientific ideas and the emphasis on storytelling and a narrative in a scientific presentation is vital.

When asked if they would change anything if there was a second time around, Dr. Starczynowski leaped at the opportunity to remind us all to “Take more scientific risks!” He reminded the trainees to embrace failure and approach it as a learning experience. In his experience, perhaps not asking the right scientific question can lead to taking a more conservative approach, which he recognizes is not good. Dr. Bolgioni-Smith agreed and asked the trainees to consider learning a new technique and fostering collaborations with other labs and departments. In her advice to

the trainees, Dr. Tremaglio emphasized the importance of being clear and concise as an effective communicator. Communication, both oral and written, is a skill all panelists agreed is paramount to success and advised the trainees to sharpen this skill throughout their training.

It would be remiss not to mention the obvious deterrents in academia that the panelists pointed out; like in any other sector, the environment is high-pressured, there's a propensity to bring work home, the climate can be politically charged and particularly now, the COVID pandemic has reinvented the academic setting altogether.

It would appear that every day brings on new challenges and opportunities. Drs. Tremaglio and Belkina advised the attendees to "be flexible; be open to change and the possibilities that are out there." Now more than ever, Dr. Tremaglio sees this as an opportunity to be flexible and engage creatively with her students, colleagues and others. Dr. Bolgioni-Smith finished by saying "there is never a wrong path; it's your path".